

C4390-3

paperboard packaging

MARCH 1985 / \$2.00

AICC
CONVERFLEX

EVOLUTION IN BOXMAKING

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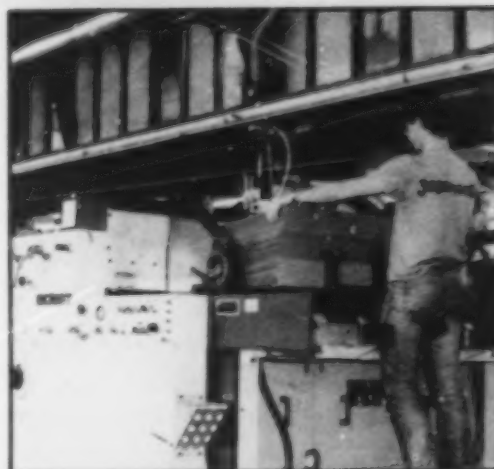
paperboard packaging

March 1985, Volume 70, No. 3 ABP ▽BPA

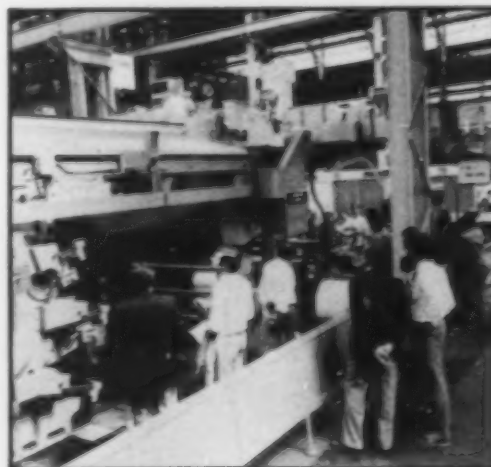
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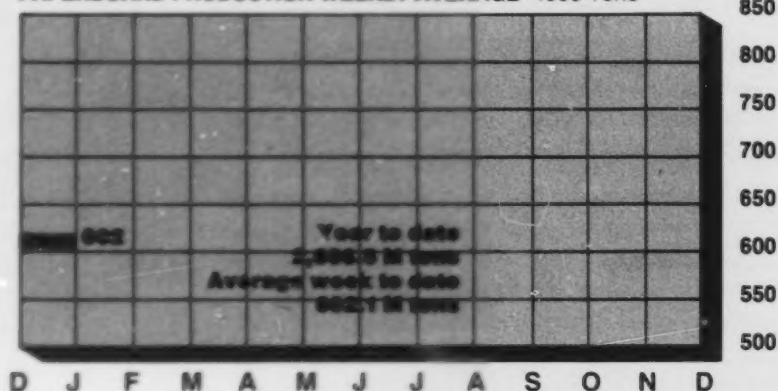
54 Convertiflex in Milan will outdo '81 exhibit

COMING

April: Boxboard report/Customer feedback/AICC Hall of Fame
May: Unions and box plants/Anilox rolls and ink/NP&PA
June: Census 85/High-strength boxes/FEFCO/ECMA

INDUSTRY STATISTICS

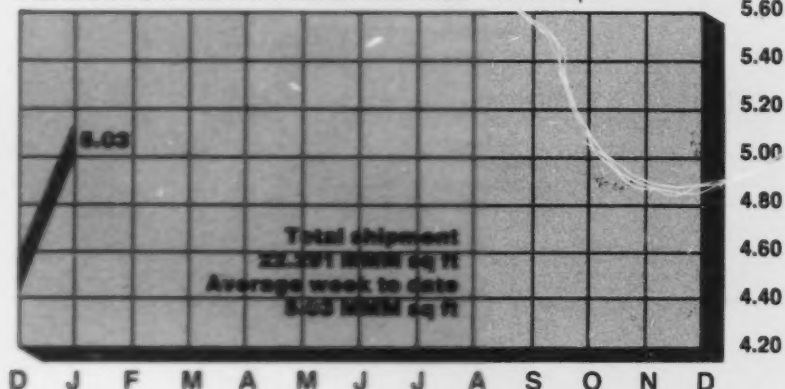
PAPERBOARD PRODUCTION WEEKLY AVERAGE 1000 Tons



Mill operations

The first month of 1985 continued to reflect the output easing of later 1984 months, after earlier vigor. A volume of 2666.5 M short tons was down 2% from last year's first month, which had been 12% up from '83, which was 7.9% up from recessive 1982. Rarely have there been such wide swings in annual volume over so short a time. But business stability led to reduction in the usual holiday mill shutdowns. This, and continued high fibre-box demand, resulted in the second-highest January volume on record.

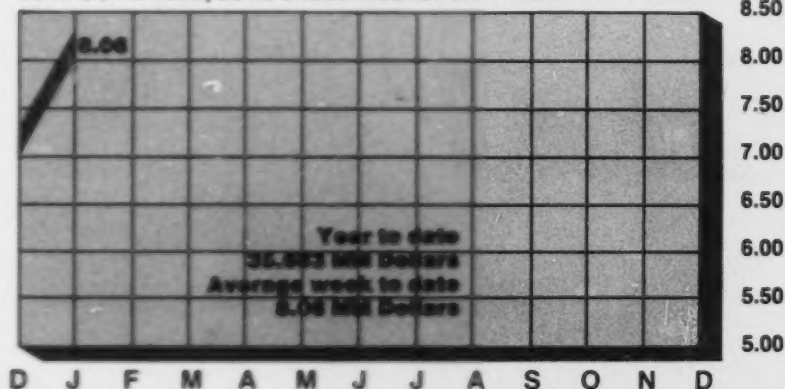
FIBRE BOX SHIPMENTS WEEKLY AVERAGE Billion Sq Ft



Board production

January's output included 1985.6 M tons of containerboards, down 1% from January '84, plus 680.9 M of boxboards, down 4.5%, as projected on a historic basis from the American Paper Institute's "production by furnish" tonnages. Bleached boards fell 3.6%, recycled grades 4.3%. The trend continues toward minimizing carton costs. The price differential of bleached over clay-coated boards remains more than one third, an all-time high; this margin can hardly be ignored in a competitive boxmaking business.

COMPOSITE TUBE/CORE SALES WEEKLY AVERAGE Million Dollars



Rigid boxes

Rigid box billings, up 9% from early '84, reflect an increase in unit price rather than volume. Rigid box tonnage, unreported by the National Paperbox & Packaging Association, in general parallels that entering into folding carton conversion, which has had a minimal expansion. That, again, is attributed to competition from alternative packagings in high-volume applications, and to other materials made part of paper boxes.

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THE
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OF THE

FOLDING CARTON INDUSTRY REPORT

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Not so fast. *Mark Arzumianian*

10 NEWS

AICC head addresses Senate committee/0-1 rebuilds paper machine/Inland opens new plant/Manville beefs carton operations/PPC boxboard report

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The costly business traveler. *Fred Sharring*

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The packaging industry in numbers and charts, market by market

20 TECHNOLOGY TRIUMPHS OVER TREPIDATION

By taking advantage of the latest Peters boxmaking machinery, a German corrugating plant has achieved a blossoming of worker productivity and cohesiveness. *Mark Arzumianian*

24 COMPUTER PACKAGE EARNS TOP PPC HONOR

Champion International's one-color UV-coated foil board package won over judges at the Paperboard Packaging Council's prestigious annual event.

30 SCRAP REMOVAL ALSO REMOVES PROFIT DRAIN

A Minneapolis sheet plant has solved its waste problem and saved on labor with equipment that sucks up, shreds and bales floor scrap.

55 ARVANIGIAN ENTERS AICC HALL OF FAME

The founder of Arvco Containers has succeeded by employing a keen sense of purchasing economics, market viability and operations specialization.

64 RESPONDING TO CUSTOMER COMPLAINTS

Feedback from end users is part of a vital system of checks and balances, though on the whole packaging's customers seem fairly well satisfied.

68 PRINT 85 TAKES OVER McCORMICK

This month's Chicago extravaganza will be a marketplace for manufacturers of graphic arts production machinery from all over the world.

75 BUNDLER SPEEDS PRODUCTION OF KD CONTAINERS

A corrugated container plant is using the latest bundling/strapping equipment, capable of 30,000 cartons per hour at 25-per-stack delivery.

78 BOOKMAKER BACKS HAPPILY INTO BOXES

A manufacturer of rigid box production machinery helped a Baltimore book manufacturer discover a profitable niche in computer program slipcases.

78b WORLD NEWS

Export success brings more jobs to Kirby's/Papyrus bids for Nymolla/Thames Case wins Starpack award.

80 ITALIANS SET UP U.S. DEPOTS FOR PARTS, TRAINING

Technical training on Italian machinery in Italian plants has given U.S. agents a firmer grip on addressing the needs of their customers.

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Hotmelt Curtain Coater from Coating Machinery Co. Inc.

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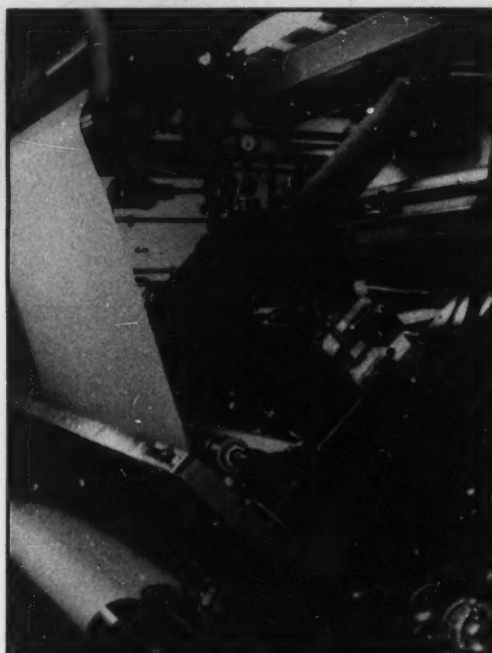
The industry's marketplace

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20 Peters machinery at German plant



30 Feeding scrap to vacuum floor sweep



55 AICC Hall of Famer George Arvanigian

COMING

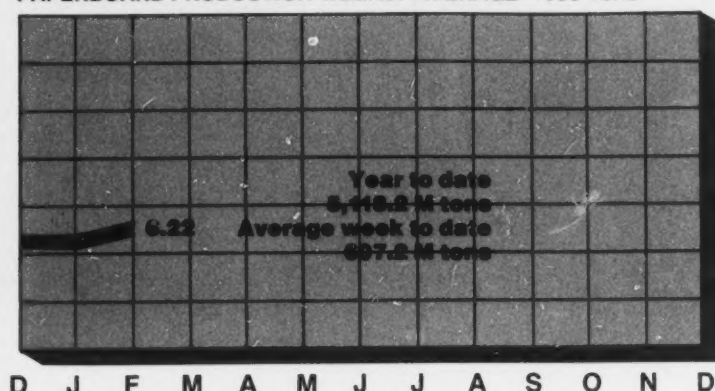
May: Unions and box plants/Anilox rolls and ink/NP&PA

June: Census 85/High-strength boxes/FEFCO/ECMA

July: Industry Forum/Offloading bottlenecks

INDUSTRY STATISTICS 1985

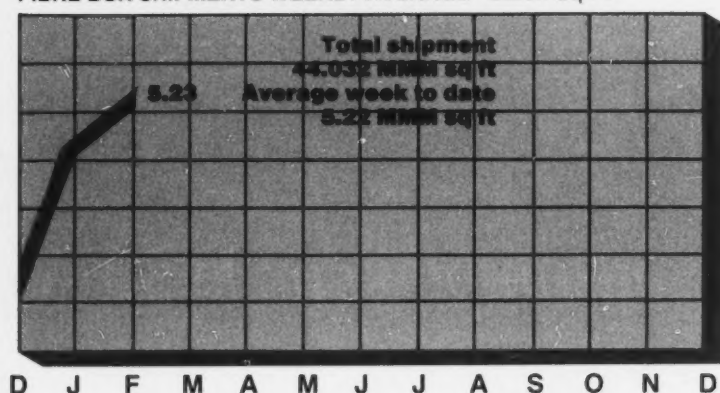
PAPERBOARD PRODUCTION WEEKLY AVERAGE 1000 Tons



Mill operations

Through two months of 1985, paperboard production was 3.2% down from record-setting, resurgent '84. The average-week tonnage in February was 3.8% below same-month '84, which had been up 9.6% from '83, which was 4.6% down from '82, which had been up 1.3% from '81, which was down 5.6% from '80—illustrating the wide gyrations of demand and supply under the economic swerves of recent years. Present portents for 1985 are that it will not match massive '84 tonnage but neither will it be recessive.

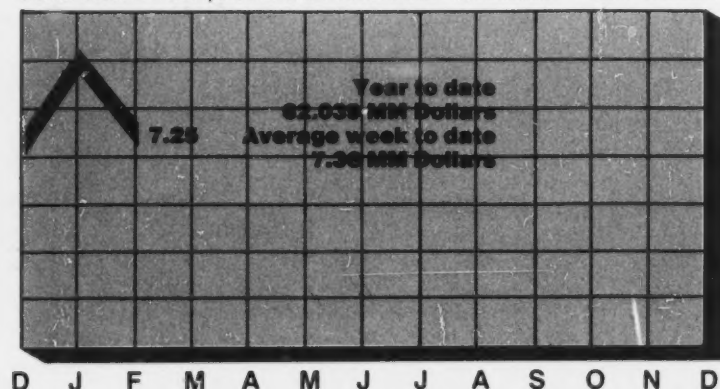
FIBRE BOX SHIPMENTS WEEKLY AVERAGE Billion Sq Ft



Board production

In February, a projected 2484.9 M tons of board included 1791.0 M of containerboards and 693.9 M of boxboards, down respectively 9.9% and 0.2% from 1984 volume. The long-term trend for some packagings is seen, unfortunately, in current tonnages relative to those of 10 years ago. Containerboard output is up 30% from same-time 1975, while boxboards are less than 2% higher. This is in the face of an 11% U.S. population rise that decade, to about 238.5 million entering '85. Plastics have come a long way.

COMPOSITE TUBE/CORE SALES WEEKLY AVERAGE Million Dollars



Rigid boxes

Set-up box billings (total sales) in early '85 are 9% up from '83, 58% from '75, report major producers to the NP&PA. This suggests a distinct decline in recent tonnage; in the parallel case of folding cartons, ton-price has gone up an average of around 9% annually. That again would seem to substantiate the slow decline, now decades-long, in boxboard-packaging output—with geography having its usual strong influence on local business.

Sales of folding cartons on the rise

A survey of the folding carton industry answers some questions about the concerns and priorities of plant management people.

Things appear to be looking up in the folding carton industry: 73% of respondents to the 1984 Paperboard Market Profile reported a sales volume increase last year over 1983. Furthermore, 74% predicted a continued rise in 1985.

The survey, sponsored by Bobst Group Inc., was conducted by Infometrics, Duluth, Minn., the statistical research arm of HBJ Inc. Infometrics sent detailed questionnaires to executives at folding carton plants nationwide.

Of the respondents, 27% were integrated, 73% independent.

The number of square feet of manufacturing space reported most often was 100,000.

Almost half of respondents (48%) felt alternate packaging materials and systems would have a "slight effect" on the folding carton business, not a far-reaching impact. Forty-five percent felt alternate packagings would squeeze or even replace folding cartons in some product categories, but not all.

Respondents said the future for aseptic packaging in North America was most likely in beverages/wine, followed by individual servings of prepared dry or liquid foods, pharmaceuticals, and medicines. If, during the next six to 12 months, suitable aseptic equipment were

made available and feasible to them, 60% of respondents nevertheless would be "not at all likely" to purchase it. Only 7% said they'd be very likely to get involved with aseptic in the next five years; 14%, somewhat likely; 36%, not very; 43%, not at all.

The survey asked respondents how important were variable repeat web offset procedures to customers. Fifteen percent said they were very important; 32%, somewhat impor-

tant; 17%, not very important; 36%, not at all important.

Respondents said the main development they wanted to see more of in the future would be water-based coatings (gloss, gluable, able to accept hot foil stamping).

When asked to list any industry support programs, or improvements in these programs, which they wanted to see developed during the near future, respondents said: better operator training programs on equipment; flexo plates; mill coatings (barrier); and better diecutting—to name the most frequent responses.

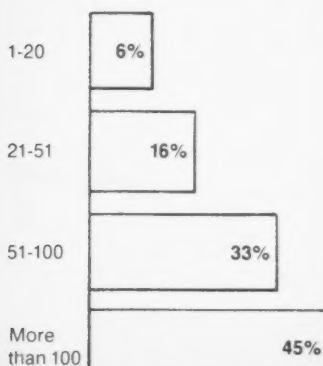
Eighty-six percent of respondents normally retained equipment more than seven years old, retrofitting as needed. Respondents were asked why they chose to maintain outdated or worn-out equipment instead of purchasing new equipment. The recurring refrain was, "Too expensive; can't justify the purchase."

Forty-six percent said they planned either to initiate or upgrade their hot foil stamping process during the next 12 months; 71% would do so for embossing; 33% for gold printing.

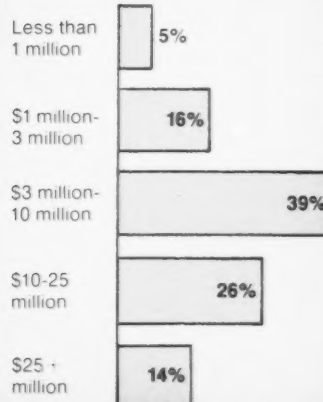
The remaining statistics are graphically illustrated in the following tables and charts. □

MARKET PROFILE

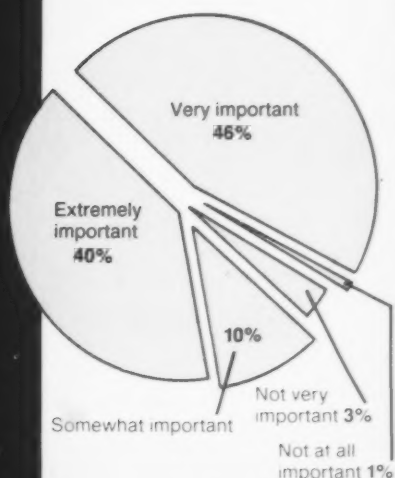
Approximately how many employees do you have at this plant location?



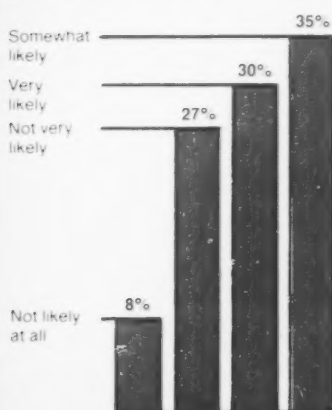
What was your estimated sales volume during 1984?



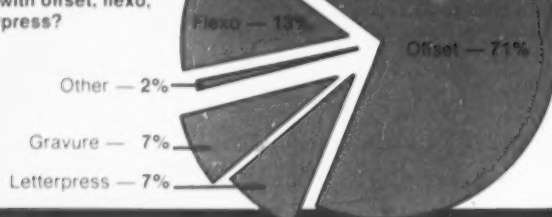
Please think about the recent developments and modifications in die cutters, folder-gluers and printing presses. These mean less time in changing job specifications by cutting set-up time. How important is speeding up the changeover process to you?



During the next year, how likely will you be to utilize the advances in speeding the changeover process, by considering new plant equipment geared for faster set-up?



What percentage of your volume of business is done with offset, flexo, gravure and letterpress?



Please think about the importance of training in your operation. How important is training to you in the following areas:

	Very important	Somewhat important	Not very important	Not at all important
Internal sales programs	36%	40%	15%	9%
Management training programs	32%	42%	21%	5%
Manufacturer's training on equipment	52%	30%	14%	4%
Pre-installation equipment training	40%	34%	17%	9%
Diecutter operator training	60%	28%	10%	2%
Folder-gluer operator training	60%	26%	12%	2%
Printing press operator training	70%	20%	8%	2%
Computer training	31%	42%	18%	9%
Troubleshooting techniques	43%	39%	13%	5%

How satisfied are you with the current training programs offered by manufacturers in connection with equipment purchased from their companies? Specifically, how satisfied are you with manufacturer training programs for the following types of equipment?

	Very Satisfied	Somewhat Satisfied	Not very Satisfied	Not at all Satisfied
Diecutters	39%	39%	19%	3%
Printing presses	34%	38%	23%	5%
Folder-glueers	23%	44%	27%	6%

On a scale of 1 to 10, 10 being extremely important, 1 being not important at all, indicate the features that are important when purchasing diecutters, printing presses, and folder-glueers.

DIECUTTERS	
Set-up	9
Cost	8
Self register	7
Self correction	6
Tension control	6

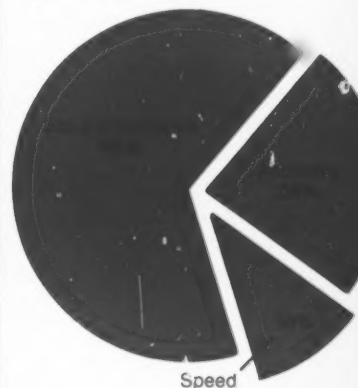
PRINTING PRESSES	
Set-up	9
Cost	8
Self register	8
Self correction	7
Tension control	6

FOLDER-GLUEERS	
Set-up	9
Cost	8
Self register	7
Self correction	6
Tension control	5

Please think about retort pouch packaging. In which of the following product categories do you expect losses to occur in folding carton business due to this type of packaging, during the next year?

	% Expecting losses	Estimated loss
Pharmaceutical	53%	9%
Food and beverage	93%	12%
Soaps/Detergents	45%	7%
Diapers	43%	15%
Cookies	63%	12%

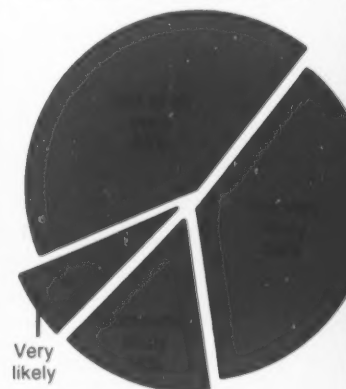
Regarding web diecutting retrofits, which is more important to you, speed or accuracy?



Please think about rigid packaging. In which of the following product categories do you expect losses to occur in folding carton business due to this type of packaging, during the next year?

	% Expecting losses	Estimated loss
Pharmaceutical	43%	4%
Food and beverage	62%	7%
Soaps/Detergents	38%	10%
Diapers	24%	10%
Cookies	48%	7%

During the next five years, how likely will you be to become involved with aseptic packaging?



Please think about micro-flute packaging. In which of the following product categories do you expect losses to occur in folding carton business due to this type of packaging, during the next year?

	% Expecting losses	Estimated loss
Pharmaceutical	17%	5%
Food and beverage	47%	6%
Soaps/Detergents	69%	6%
Diapers	36%	6%
Cookies	28%	5%

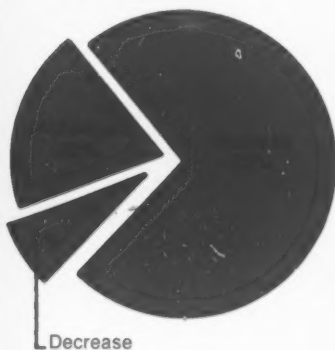
Regarding equipment over seven years old, do you generally



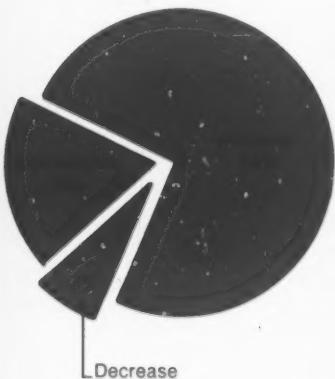
How important are variable repeat web offset procedures to customers?



Did your 1984 sales volume increase, decrease or remain unchanged from 1983?



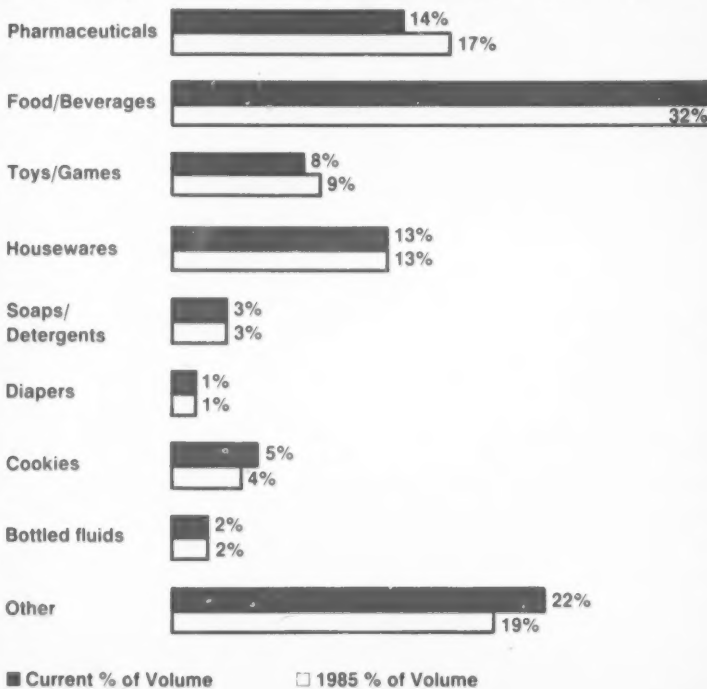
Do you expect your sales volume to increase, decrease or remain unchanged during 1985?



Probability of usage of specific printing methods according to product categories.

	Offset	Flexo	Gravure	Letterpress
Pharmaceutical	92%	3%	1%	4%
Food/Beverage	69%	17%	7%	7%
Toys/Games	90%	5%	0%	5%
Soaps/Detergents	76%	5%	16%	3%
Diapers	61%	6%	29%	4%
Cookies	80%	9%	8%	3%
Bottled fluids	78%	11%	5%	6%
Housewares	80%	8%	2%	10%
Other	70%	15%	6%	9%

What percentage of your sales volume currently comes from each of these product categories? How do you expect this to change during the next year?



In regard to variable repeat web offset, aseptics and water-based inks, which of the following conditions apply to your particular operation?

	Have Low Interest	Currently Use	Anticipate Using During the Next Two Years
Variable repeat web offset	76	8	17
Aseptics	86	7	4
Water-based inks	41	41	18

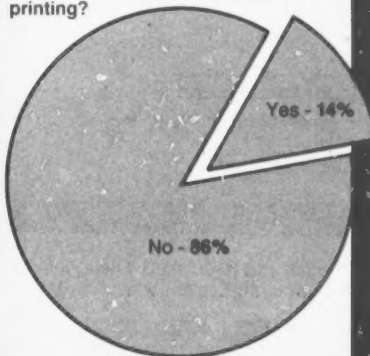
What types of equipment are currently used in folding carton operations? If the equipment is in need of updating or repair, is it usually replaced, or retrofitted, or both?

	Currently Use	Do Not Use	Replace Equipment	Retrofit Equipment	Both
Offset printing press	89%	11%	32%	23%	45%
Gravure printing press	21%	79%	9%	64%	27%
Letterpress printing press	37%	63%	21%	53%	26%
Sheet fed diecutter	94%	6%	36%	20%	44%
Web fed diecutter	41%	59%	8%	52%	40%
Multi-purpose folder-gluer	84%	16%	22%	29%	49%
Straight-line folder-gluer	96%	4%	19%	24%	57%
Waxer	26%	74%	15%	23%	62%
Laminator	25%	75%	20%	40%	40%
Window machine	74%	26%	26%	50%	24%

What sheet and web widths are you most typically using? What widths would you like to be using in the future?

SHEET WIDTHS	NOW	FUTURE	WEB WIDTHS	NOW	FUTURE
36-40"	37%	35%	36-40"	35%	23%
30" or less	20%	16%	41-45"	18%	17%
41-45"	11%	18%	26-30"	13%	14%
61-65"	10%	7%	46-50"	8%	14%
56-60"	7%	9%	21-25"	6%	-
51-55"	5%	5%	15" or less	5%	6%
31-35"	6%	1%	31-35"	6%	14%
46-50"	5%	9%	Over 55"	-	-
Over 65"	-	-	16-20"	2%	2%
			50-55"	2%	10%

Are you currently utilizing gravure printing?



Reasons for not utilizing gravure printing (all that apply):

High cost of procedure	30%
Low customer demand	48%
High cost of gravure cylinders	34%
High cost of gravure machinery	36%

Concerning gravure engravings, the industry's progress has been:

Extremely pertinent and useful to the boxmaking industry	28%
Somewhat important and moderately useful	40%
Not very useful and sparsely utilized	19%
Impractical for most operations	13%

Are you planning to introduce gravure printings into your operation during the next year?

Yes	—
No	100%

In regard to gravure engravings, how satisfied are you with the following elements of this process?

	Very Satisfied	Somewhat Satisfied	Not Very Satisfied	Not At All Satisfied
Quality	11%	56%	28%	5%
Cost	—	22%	56%	22%
Delivery time from suppliers	—	33%	45%	22%